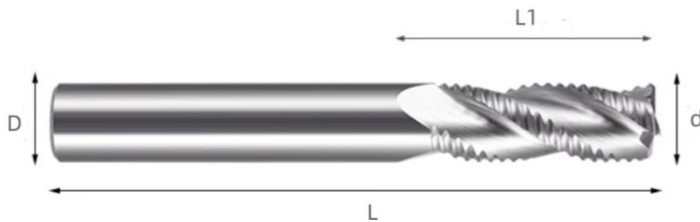


111 series

HRC58° Solid Carbide 3 Flutes Roughing End Mill

∞Applicable materials: copper, aluminum, aluminum alloy, plastic, soft materials.

Tool Material	Solid Carbide
Coating	None
Cutting Hardness	HRC58°
Flute	3 Flutes
Helix Angle	35°



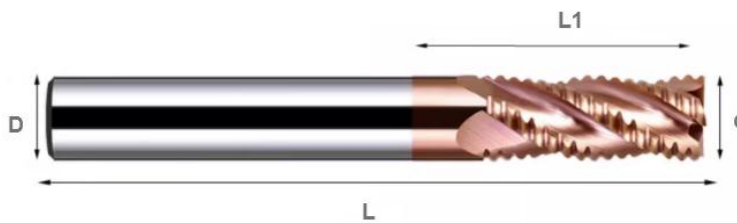
Order NO.	d	L1	D	L	Flute
111-R-3-3-8	3	8	3	50	3F
111-R-3-4-8	3	8	4	50	3F
111-R-4-4-10	4	10	4	50	3F
111-R-5-5-13	5	13	5	50	3F
111-R-5-6-13	5	13	6	50	3F
111-R-6-6-15	6	15	6	50	3F
111-R-6-6-20	6	20	6	75	3F
111-R-6-6-25	6	25	6	100	3F
111-R-7-8-18	7	18	8	50	3F
111-R-8-8-20	8	20	8	60	3F
111-R-8-8-5	8	25	8	75	3F
111-R-8-8-35	8	35	8	100	3F
111-R-9-10-25	9	25	10	75	3F
111-R-10-10-30	10	30	10	75	3F
111-R-10-10-40	10	40	10	100	3F
111-R-12-12-30	12	30	12	75	3F
111-R-12-12-45	12	45	12	100	3F
111-R-14-14-45	14	45	14	100	3F
111-R-16-16-45	16	45	16	100	3F
111-R-16-16-70	16	70	16	150	3F
111-R-18-18-45	18	45	18	100	3F
111-R-20-20-45	20	45	20	100	3F
111-R-20-20-70	20	70	20	150	3F

112 series

HRC58° Solid Carbide 4 Flutes Roughing End Mill

∞Applicable materials: alloy steel, mold steel, 45# steel, cast iron, rigid materials.

Tool Material	Solid Carbide
Coating	Nano Coating Bronze Color
Cutting Hardness	HRC58°
Flute	4 Flutes
Helix Angle	35°



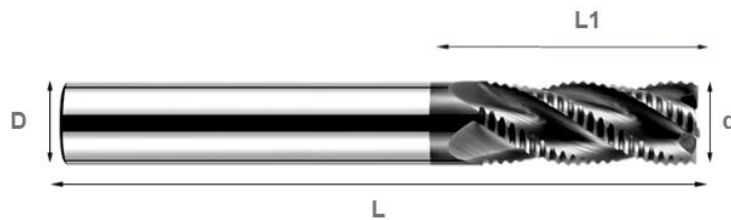
Order NO.	d	L1	D	L	Flute
112-R-3-3-8	3	8	3	50	4F
112-R-3-4-8	3	8	4	50	4F
112-R-4-4-10	4	10	4	50	4F
112-R-5-5-13	5	13	5	50	4F
112-R-5-6-13	5	13	6	50	4F
112-R-6-6-15	6	15	6	50	4F
112-R-6-6-20	6	20	6	75	4F
112-R-6-6-25	6	25	6	100	4F
112-R-7-8-18	7	18	8	50	4F
112-R-8-8-20	8	20	8	60	4F
112-R-8-8-25	8	25	8	75	4F
112-R-8-8-35	8	35	8	100	4F
112-R-9-10-25	9	25	10	75	4F
112-R-10-10-30	10	30	10	75	4F
112-R-10-10-40	10	40	10	100	4F
112-R-12-12-30	12	30	12	75	4F
112-R-12-12-45	12	45	12	100	4F
112-R-14-14-45	14	45	14	100	4F
112-R-16-16-45	16	45	16	100	4F
112-R-16-16-70	16	70	16	150	4F
112-R-18-18-45	18	45	18	100	4F
112-R-20-20-45	20	45	20	100	4F
112-R-20-20-70	20	70	20	150	4F

113 series

HRC66° Solid Carbide 4 Flutes Roughing End Mill

∞Applicable materials: stainless steel, alloy steel, mold steel, 45# steel, rigid material

Tool Material	Solid Carbide
Coating	Nano Coating Black Color
Cutting Hardness	HRC66°
Flute	4 Flutes
Helix Angle	35°



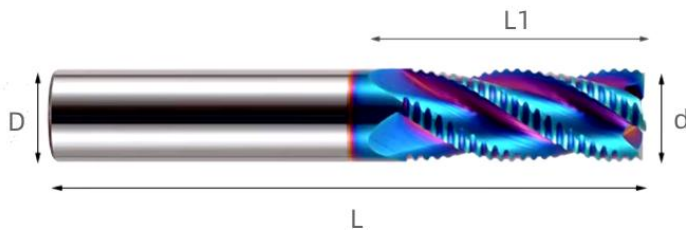
Order NO.	d	L1	D	L	Flute
113-R-3-4-8	3	8	4	50	4F
113-R-4-4-10	4	10	4	50	4F
113-R-5-5-13	5	13	5	50	4F
113-R-6-6-15	6	15	6	50	4F
113-R-5-6-25	6	25	6	75	4F
113-R-6-6-30	6	30	6	100	4F
113-R-8-8-20	8	20	8	60	4F
113-R-8-8-25	8	25	8	75	4F
113-R-8-8-35	8	35	8	100	4F
113-R-10-10-40	10	40	10	100	4F
113-R-12-12-45	12	45	12	100	4F
113-R-14-14-40	14	40	14	100	4F
113-R-16-16-45	16	45	16	100	4F
113-R-18-18-45	18	45	18	100	4F
113-R-20-20-45	20	45	20	100	4F

114 series

HRC65° Solid Carbide 4 Flutes Roughing End Mill

∞Applicable materials: 45# steel, cast iron, mold steel, HRC < 65° materials.

Tool Material	Solid Carbide
Coating	Nano Coating Blue Color
Cutting Hardness	HRC < 65°
Flute	4 Flutes
Helix Angle	35°



Order NO.	d	L1	D	L	Flute
114-R-3-4-8	3	8	4	50	4F
114-R-4-4-10	4	10	4	50	4F
114-R-5-5-13	5	13	5	50	4F
114-R-6-6-15	6	15	6	50	4F
114-R-5-6-25	8	20	8	60	4F
114-R-6-6-30	8	35	8	100	4F
114-R-8-8-20	10	25	10	75	4F
114-R-8-8-25	10	40	10	100	4F
114-R-8-8-35	12	30	12	75	4F
114-R-10-10-40	12	45	12	100	4F
114-R-12-12-45	14	40	14	100	4F
114-R-14-14-40	16	45	16	100	4F
114-R-16-16-45	18	45	18	100	4F
114-R-18-18-45	20	45	20	100	4F